Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.   (Currently Amended) A device comprising:

an MPEG decoder structured to decode several coded images from at least a first and a second MPEG stream for displaying simultaneously one image of the first MPEG stream and one image of the second MPEG stream, the coded images belonging to a first type or to a second type, the images of the first type being frame interlaced images comprising two fields, the decoding of which is completed in two periods, one of the periods being equal to the time duration of one field display, and the images of the second type being interlaced half-images or progressive images, the decoding of which is completed in one of the periods; and

a decoder control circuit for controlling ~~an~~ the MPEG decoder, the decoder control circuit being configured to receive an order to decode a plurality of images at each of the periods and ~~structured to decode several coded images from at least two MPEG streams simultaneously in a plurality of periods, the decoder control circuit receiving, at a beginning of each period, an order to decode a plurality of images of a first or of a second type, the images of the second type being decodable at any time during the period following their decoding command, and the images of the first type being decodable at any time during the two periods following their decoding command,~~ including a priority assignment circuit structured to, at each period, grant among the images to be decoded a decoding priority such that the highest decoding priority is granted to ~~any of the~~ images of the first type ~~that~~ that have received their decoding order for more than one of the periods, a lower decoding priority is granted to images of the second type, and the lowest decoding priority is granted to images of the first type that have received their decoding order for less than one of the periods. ~~still have not been decoded one period after their decoding order, otherwise, if there are any, to the images of the second type.~~

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2.   (Original) The device according to claim 1, wherein the decoder control circuit further includes a pointer memory for storing the beginning addresses of each of the images to be displayed.

3.   (Original) The device according to claim 1, wherein said decoder control circuit further includes a safety circuit for adding a predetermined header before each image provided to the decoder so that two images put end to end cannot form a code that causes a malfunction of the decoder.

4.   (Canceled).

5.   (Original) The device according to claim 1, further comprising:

a memory that stores coded data and decoded data;

a first bus that connects the decoder control circuit to the memory;

a display control circuit connected between a screen and the first bus; and

a microprocessor connected by a second bus to the decoder control circuit and the display control circuit.

6.-7.   (Canceled).

8.   (Currently Amended) A method for prioritizing MPEG images to be decoded, decoded by a single MPEG decoder, the method comprising:

receiving first and second image sequences of coded images from more than one MPEG stream, each coded image having an a frame interlaced image type that is one of a plurality of image types; or an interlaced half-image image type;

receiving a stream of decoding commands in a series of synchronizing periods, each decoding command corresponding to a respective one of the coded images;

adding each decoding command to a priority list;

prioritizing the decoding commands by assigning to each decoding command a priority level based on the image type of the coded image corresponding to the decoding command and the period in which the decoding command was received;

decoding the coded images in a priority order based on the priorities assigned to the coded images, thereby producing first and second images sequences of decoded images; and

displaying the first and second image sequences.

9. (Currently Amended) The method according to claim 8 wherein the plurality of image types includes first and second images types and prioritizing the decoding commands comprises:

assigning a higher priority to a first decoding command corresponding to a frame interlaced coded image of the first image type than to a second decoding command corresponding to a interlaced half-image coded image of the second image type if the second decoding command has been on the list for less than one synchronizing period and otherwise assigning a higher priority to the second decoding command than to the first decoding command.

10. (Currently Amended) A method for decoding a plurality of MPEG sequences from more than one MPEG stream simultaneously using a single MPEG decoder, the method comprising:

receiving a first sequence of frame-interlaced coded images and a second sequence of non-frame-interlaced image sequences of coded images;

receiving a stream of decoding commands, each decoding command corresponding to a respective one of the coded images;

prioritizing the received coded images based on whether the coded image is a frame-interlaced coded image and on when the corresponding decoding command was received;

decoding the coded images using the single MPEG decoder based on the prioritizing, thereby producing decoded images of first and second images sequences; and

saving the decoded images.

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11. (Original) The method according to claim 10 wherein the decoding commands are received in a series of synchronizing periods and prioritizing the coded images includes, during each synchronizing period, prioritizing the decoding commands received in the synchronizing period.

12. (Original) The method according to claim 11 wherein prioritizing the coded images includes, during each synchronizing period, assigning a lower priority to the decoding command received during the synchronizing period than to any decoding command received in a prior synchronizing period.

13. (Currently Amended) The method according to claim 11 wherein ~~the coded images include first and second sets of coded images and wherein~~ the coded images of the first ~~set~~ sequence are decoded during the synchronizing period in which the decoding commands corresponding to the coded images of the first ~~set~~ sequence are received and the coded images of the second ~~set~~ sequence are decoded during a synchronizing period subsequent to the synchronizing period in which the decoding commands corresponding to the coded images of the second ~~set~~ sequence are received.

14. (Currently Amended) The method according to claim 11 ~~wherein the coded images include a first coded image of a first image type and second coded image of a second image type,~~ wherein prioritizing the coded images includes:

assigning a higher priority to ~~the~~ a first coded image than to ~~the~~ a second coded image if the decoding command corresponding to the first coded image was received in a synchronizing period prior to the synchronizing period in which the decoding command corresponding to the second coded image was received.

15. (Canceled).

16. (Currently Amended) The method according to claim 14, wherein ~~said~~ the second sequence comprises a sequence of ~~type of image is an~~ interlaced half-images. ~~half image or a non-interlaced complete image.~~

17. (Original) The method according to claim 10 wherein the coded images are read from a memory device and the decoded images are saved to the memory device.

18. (Currently Amended) A device, comprising:

an MPEG decoder configured to decode a plurality of MPEG image sequences from more than one MPEG stream in parallel; and

a controller coupled to the MPEG decoder and configured to control the MPEG decoder such that:

a received frame-interlaced image sequence ~~of a first type~~ is decodable during two periods following an associated decoding order; and

a received non-frame-interlaced image sequence ~~of a second type~~ is decodable during a first period following an associated decoding order.

19. (Currently Amended) The device of claim 18 wherein the controller comprises a prioritizing module configured to assign a decoding priority to received frame-interlaced image sequences ~~of the first type~~ that are not decoded in a first period following their associated decoding order.

20. (Previously Presented) The device of claim 18, wherein the controller comprises a pointer memory to store images sequences to be decoded and associated decoding parameters and the controller assigns a decoding priority to received image sequences based at least in part on the associated decoding parameters.

21.   (Previously Presented)   The device of claim 18 wherein the received image sequences of the first type are interlaced complete-image sequences and the received image sequences of the second type are interlaced half-image sequences.

22.   (Currently Amended)   The device of claim 18 wherein the controller comprises a prioritizing module configured to assign a first decoding priority to received frame-interlaced image sequences of the first type during a second period following their associated decoding order, a second decoding priority to received non-frame-interlaced image sequence of the second type and a third decoding priority to received frame-interlaced image sequence of the first type during a first period following their associated decoding order.

23.   (Previously Presented)   The device of claim 18 wherein the controller comprises means for assigning a decoding priority to received image sequences.

24.   (Previously Presented)   The device of claim 18 wherein the controller is further configured to control the MPEG decoder such that a first decoded image sequence of a coded image from a first MPEG stream is produced and a second decoded image sequence of a coded image from a second MPEG stream is produced.

25.-26. (Canceled).

27.   (Previously Presented)   The method of claim 10 wherein the first decoded image sequence is a decoded image sequence from a first MPEG stream and the second decoded image sequence is a decoded image sequence a second MPEG stream.

28.   (New)   The method according to claim 14, wherein the second sequence comprises a sequence of non-interlaced complete images.